Cleaner Power, Cleaner Environment: The U.S. Advanced Energy Initiative

President Bush committed the United States to cut its greenhouse gas intensity – the amount emmitted per unit of GDP – by 18 percent by 2012. In order to meet this goal, the U.S. has invested over $10 billion to develop cleaner, cheaper, more reliable alternative energy sources in the past five years alone. **In 2006, the President announced a further 22% increase in funding for clean energy research at the Department of Energy to focus on programs in two areas: power for homes and businesses and power for automobiles.** Specific steps the President proposed in his 2007 budget are:

Programs To Clean and Change The Way We Power Our Homes And Businesses

- **Coal Research Initiative: $2 billion over 10 years to accelerate research in the use of clean coal technology**; $54 million in 2007 budget for development of technologies for an emissions-free coal plant under the FutureGen Program.

- **Solar America Initiative: $148 million to accelerate development of solar photovoltaic cells** that can be incorporated into building materials of "zero energy" homes, that will produce more energy than they consume.

- **Expanding Clean Energy from Wind -- $44 million** to improve efficiency and lower costs of new wind technologies for use in low-speed wind environments.

Programs To Change The Way We Power Our Automobiles

- **Biorefinery Initiative -- $150 million** to help develop bio-based transportation fuels from agricultural waste products such as wood chips, stalks, or switch grass. Scientists say when cellulosic ethanol becomes cost-competitive, bio-based fuel has the potential to displace up to 30% of current U.S. fuel use.

- **Developing More Efficient Vehicles -- $30 million** to accelerate research in the next generation of battery technology for hybrid vehicles that will make it possible to "plug-in" a vehicle and draw power from electricity alone.

- **Hydrogen Fuel Initiative -- $289 million** to accelerate development of hydrogen fuel cells and affordable hydrogen-powered cars. The cost of a hydrogen fuel cell has been cut by over 50% in the last 4 years. Through private-sector partnerships, the Hydrogen Fuel Initiative will make it practical and cost-effective for Americans to use hydrogen fuel cell vehicles by 2020.

Legislation: The 2005 Energy Bill

- **Increased Efficiency Standards:** the energy bill sets new minimum efficiency standards for a range of products including heaters, refrigerators, and lighting units. It also encourages the sale and production of energy efficient products and offers tax credits for home energy efficiency improvements. The bill requires a new rulemaking by the Department of Transportation to increase fuel economy standards for passenger cars, light trucks, and SUVs.

- **Tax Incentives:** the energy bill provides tax incentives of up to $3,400 per vehicle to encourage the purchase of highly efficient hybrid, clean diesel, and fuel cell vehicles, extended tax benefits enabling ethanol and biodiesel to compete in today's market, and provides 30% tax credit for installation of alternative fuel stations.

- **Expanding the Use of Alternative and Renewable Energy**: the energy bill establishes a standard to require the annual use of 7.5 billion gallons of ethanol and biodiesel in the nation's fuel supply by 2012. It extends existing tax credit for production of electricity from renewable resources such as wind, biomass, and landfill gas and creates a tax credit for residential solar energy systems. The bill also authorizes full funding of the President's Hydrogen Fuel Initiative.